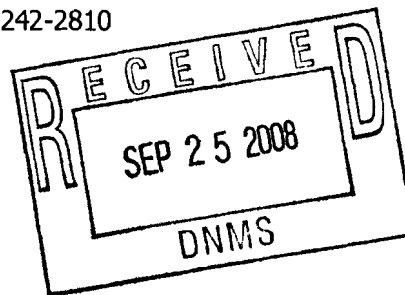


# HALLIBURTON

Health, Safety and Environment • Operational Excellence  
P O Box 42810 • Houston, TX 77242-2810



September 9, 2008

Mr. Jack Whitten  
U.S. Nuclear Regulatory Commission - Region IV  
Texas Health Resources Tower  
612 E. Lamar Blvd., Suite 400  
Arlington, TX 76011-4125

RE: USNRC Radioactive Materials License No. 42-01068-07 – RSO Change

Dear Mr. Whitten,

***Amendment Request:***

Halliburton Energy Services, Inc. wishes to amend License Condition 12.B of USNRC Radioactive Materials License Number 42-01068-07 to appoint Ms. Elizabeth A. Foltz as the Radiation Safety Officer. This amendment is necessary as a result of a reorganization of staffing at Halliburton.

Ms. Foltz has 28+ years work experience involving radiation and radioactive materials. This experience includes health physics-related work with Halliburton, Texas Department of Health – Bureau of Radiation Control, Baylor College of Medicine, Puget Sound Naval Shipyard, and the United States Navy nuclear propulsion program. The resume and well logging supervisor training certificates for Ms. Foltz are attached for your review.

Your assistance in expediting this request is appreciated. My contact information is listed below should you have any questions.

Sincerely,

A handwritten signature in black ink that reads 'Melissa Bergman'.

Melissa Bergman  
Director of Global Health & Safety  
Halliburton  
10200 Bellaire Blvd.  
Houston, TX 77072-5206  
Tel: 281-575-4863

Enc: Elizabeth A. Foltz – Resume and Training Certificates

File: HL1333.doc

No 4 7 1 9 6 8

**Elizabeth A. Foltz**  
Halliburton Energy Services, Inc.  
3000 N. Sam Houston Parkway East  
Houston, Texas 77032  
Office 281-871-5745 / Cell 281-224-2227  
[Elizabeth.Foltz@Halliburton.com](mailto:Elizabeth.Foltz@Halliburton.com)

**Professional Experience**

**Halliburton Energy Services**  
**September 2008 - Present**

**Houston, TX**

**GLOBAL RADIATION PROTECTION MANAGER**

Manage the Halliburton Energy Services Radiation Safety Program for activities involving well logging operations authorized by NRC and multiple Agreement State radioactive materials licenses. Responsible for license management and coordination of all regulated activities. Develop and provide personnel training on radiation safety and radioactive material transportation. Oversee the personnel dosimetry program for approximately 3700 personnel. Responsible for the accountability and maintenance for over 9,000 radioactive sources. Responsible for Halliburton radiation safety operations for well logging, including training, audits, licensing, and other compliance issues. As a member of the Halliburton Corporate Radiation Safety Committee, responsible for establishing appropriate administrative procedures to ensure the control of procurement and use of radioactive material and the completion of safety analyses of proposed uses of radioactive material.

**Halliburton Energy Services**  
**April 2008 – August 2008**

**Houston, TX**

**GLOBAL HAZARDOUS MATERIALS MANAGER**  
**Wireline & Perforating Services**

- Manage Am-241/Be source remix and recertification program for WPS.
- Focal point for bringing new source vendor on line to supply Cs-137 logging sources for WPS.
- Review and perform Country Level and PSL approvals of EDI Sales Order and AMI Transfers of radioactive sources for WPS.
- Provide guidance on preparation of radioactive shipments to WPS personnel as needed.
- Monitor radiation and explosives QCA performance for WPS locations.
- Review radiation and explosives safety training compliance for WPS personnel.
- Prepare written reports for WPS management regarding radiation and explosives incidents, QCA performance, and training compliance.
- Review findings from governmental and corporate audits and assist in correcting deficiencies.
- Interface regularly with Global Radiation and Explosives Safety personnel regarding issues involving WPS operations.
- Review RHS Incident reports for WPS involving radiation and explosives. Follow up on status of investigations and implementation of corrective actions.
- Prepare radiation and explosives safety bulletins for distribution to WPS.
- Audit WPS field locations for compliance with radiation and explosives safety requirements.

- Interface with WPS Asset Management team to ensure proper asset classification of radioactive sources and allocation of sources to field locations.
- Participate in development of new and/or updated processes involving explosives and radioactive sources used by WPS.

**Halliburton Energy Services**  
**November 2000 – April 2008**

**Houston, TX**

**FACILITY RADIATION SAFETY OFFICER – HOUSTON NORTHBELT CAMPUS**  
**(TEXAS RAM LIC. NO. L00442)**  
 Manufacturing/Supply Chain/Technology

- Responsible for management of extensive radiation safety program at Halliburton Northbelt Manufacturing and Technology Center.
  - Manage a dynamic inventory of radioactive materials. Number of sources in inventory averages between 1000 and 1500 at any given time. Ensure that sources are leak tested as required. Maintain all required documentation pertaining to individual sources, source physical inventories, leak testing, receipts, transfers, and disposals.
  - Review all radioactive source shipments for compliance with regulatory and Company requirements. Perform LRSO approvals of EDI sales orders and AMI transfers for radioactive materials. Ensure all required import/export permits and possession/use licenses are in place to allow for legal shipments.
  - Manage radiation dosimetry program for approximately 250 monitored employees.
  - Manage area radiation monitoring program encompassing the entire Northbelt facility to ensure compliance with radiation dose limits for members of the general public.
  - Determine radiation training necessary for Northbelt employees commensurate with job duties to ensure compliance with Company and regulatory training requirements. Ensure that the appropriate radiation safety training requirements are set in I-Learn for each employee. Regularly audit training records for compliance. Provide training to employees on a regular basis.
  - Maintain a sufficient inventory of calibrated radiation survey instruments to support radiation safety activities at the Northbelt facility.
  - Manage security and safeguards program as it relates to nuclear materials at the Northbelt facility to ensure compliance with Company, State, and Federal regulations.
  - Perform and document radiation Quarterly Compliance Audits for both WPS and Sperry PSL. Submit QCA's for management review.
  - Ensure that radioactive materials, storage areas, and radiation areas are labeled, posted and controlled in accordance with all requirements.
  - Provide direction and consultation on matters of radiation safety with employees as needed to ensure a safe working environment and compliance with regulatory requirements.
  - Regularly review all applicable regulations for changes to ensure continued compliance.
  - Maintain all required documentation as it pertains to the radiation safety program.

- Interface regularly with Global Radiation Safety Office; WPS & Sperry PSL Management (Operations, Manufacturing, Technology); Asset Management; Customer Service; PM&L; Export & Import Control, Direct Sales, Quality, Real Estate Services, and Security.
- Maintain a working list of all excess and obsolete radioactive sources in storage pending disposal. Coordinate and execute source disposal evolutions as needed. Maintain all associated documentation.
- Interface with regulators and auditors from State and Federal agencies.
- Report and investigate incidents involving radioactive materials and/or radiation exposures at the Northbelt facility. Develop, initiate, and follow-up on corrective actions to prevent recurrence.
- Designated as a Halliburton Subject Matter Expert (SME) for shipping and transportation of radioactive materials. Regularly consulted by Halliburton employees around the globe on issues regarding radioactive materials shipments.
- Manage the Cobalt Marker Bead project for Halliburton. Ensure that Plant 2020 maintains sufficient number of beads in inventory to meet both PSL and Direct Sales demand.
- Routinely consulted by and provide guidance to other Halliburton LRSO's around the world on radiation safety issues and LRSO functions.
- Work closely with WPS and LWD Technology/R&D personnel on issues involving new processes and tool designs utilizing radioactive sources.
- In-depth knowledge of each type of radioactive source utilized by Halliburton.
- Member of Northbelt Emergency Response Team.
- Provided radiation safety training to Houston area fire department HazMat Teams.
- Review and approve radiation safety elements contained in Halliburton technical documents and procedures in Matrix.
- Knowledgeable of all Northbelt manufacturing processes utilizing radioactive sources.
- Provided one-on-one training for the Facility Radiation Safety Officer of the new Sing II Manufacturing plant. Training provided on location at both Northbelt and Singapore facilities.

**Texas Department of Health – Bureau of Radiation Control      Houston, TX**  
**August 1996 to October 2000**

**REGULATORY COMPLIANCE AUDITOR – INSPECTION REGION 6**

- Performed regulatory compliance audits of radioactive materials licensees, industrial registrants, non-healing arts registrants, and laser users.
- Inspection territory encompassed greater Houston area and surrounding counties.
- Investigated incidents involving radioactive materials and radiation overexposures.
- Investigated citizen and employee complaints.
- Member of the State of Texas Radiological Emergency Response Team. Participated in regular training to ensure effective emergency response for incidents and accidents involving radioactive materials, nuclear power plants, and nuclear weapons.
- Responded to general information inquiries from radioactive materials licensees, industrial registrants and members of the public.

- Performed additional health physics and compliance activities on behalf of the State of Texas as assigned, including providing radiological monitoring at contaminated sites undergoing government-funded remediation.
- Prepared and submitted detailed written reports of all audit and investigation activities. Cited official items of regulatory non-compliance as determined during audits and investigations.
- Participated in escalated enforcement actions against licensees with documented history of continuing non-compliance or in other situations as deemed necessary by the State.
- Provided training to newly-hired auditors as needed.

**Baylor College of Medicine**  
**September 1991 to July 1996**

**Houston, TX**

#### **HEALTH PHYSICS TECHNICIAN**

- Senior Health Physics Technician on staff in the College's Office of Environmental Safety.
- Routinely conducted radiation safety inspections and surveys of the College's 600+ biomedical research laboratories that utilized radioactive materials.
- Routinely performed bioassay procedures and analysis for individual users of radioactive materials.
- Routinely calibrated radiation detection instruments and counting equipment.
- Routinely analyzed wipe test samples for radioactive contamination.
- Wrote the College's "Radiation Safety Work Practices" handbook. This handbook was used as training and reference material by faculty, staff, and students to ensure safe work practices and procedural compliance for radioactive materials.
- Conducted radiation safety training classes for College staff, faculty, and students.
- Conducted routine physical inventory and leak testing of radioactive sealed sources.
- Assisted with management of dosimetry program.
- Assisted with management of radioactive material receipt, inventory control, waste processing and disposal program.
- Provided counseling and individual training to personnel in matters of radiation safety as needed.
- Responded to and initiated corrective actions for incidents involving radioactive materials.

**Puget Sound Naval Shipyard**  
**July 1987 to July 1990**

**Bremerton, WA**

**HEALTH PHYSICS INSTRUCTOR**

- Classroom and Field Instructor for comprehensive technical training program relating to health physics and the radiological controls associated with naval nuclear power plants.
- Instructed classes, conducted practical training exercises, and prepared/evaluated written, oral and practical examinations in all phases of the Shipyard's radiation worker and health physics technician training programs.
- Participated in the preparation, administration, and evaluation of drills involving simulated radiological incidents and accidents.
- Significantly contributed to the development and production of the course curriculum used for the initial and continuing training of health physics technicians and supervisors.

**Puget Sound Naval Shipyard**  
**April 1986 to July 1987**

**Bremerton, WA**

**HEALTH PHYSICS TECHNICIAN**

- Responsible for reviewing technical work documents and implementing/monitoring the required radiological control procedures for work involving the maintenance, repair, overhaul, and refueling of nuclear power plants in Navy submarines and ships.
- Controlled access and egress of personnel and equipment for radiologically controlled areas.
- Performed surveys utilizing a wide variety of radiation monitoring equipment, including portable survey meters, dosimetry devices, and the sampling/analytical instruments used for air, liquid, soil, and marine life monitoring.
- Responded to and initiated corrective actions for actual and simulated radiological incidents and accidents.

**United States Navy**  
**October 1979 to September 1985**

**Various locations**

**NUCLEAR REACTOR OPERATOR / RADIOLOGICAL CONTROLS SUPERVISOR**

- Six years active duty service attaining rank of E-6 prior to Honorable Discharge.
- Specific qualifications and Navy Enlisted Classifications (NEC) earned:
  - Electronics Technician
  - Nuclear Reactor Operator
  - Engineering Laboratory Technician
  - Reactor Plant Electronics Maintenance Supervisor
  - Radiological Controls Monitor
  - Radiological Controls Shift Supervisor
- Experienced in the operation, maintenance, and repair of naval nuclear propulsion plants and associated radiological support equipment/facilities.

## **Education & Continuing Training**

- Local/Assistant Radiation Safety Officer Training (40 hrs) *[Halliburton]*
- Radiation Safety for Supervisors & Engineers (32 hrs) *[Halliburton]*
- Radiation Safety Aspects of Well Logging (40 hrs) *[U.S. Nuclear Regulatory Commission]*
- Transportation of Radioactive Materials (40 hrs) *[U.S. Nuclear Regulatory Commission]*
- Transportation of Dangerous Goods – IATA, USDOT, IMDG (80+hours cumulative) *[DGI Training Center and Global Transport Training Services]*
- Hazwoper Technician/Specialist – Incident Command Level Training (24 hrs) *[IQS Safety Training Services]*
- Hazwoper Emergency Response – Operation Level Training (8 hrs) *[IQS Safety Training Services]*
- Hazwoper & Emergency Response Refresher Training (8 hrs) *[IQS Safety Training Services]*
- Community Emergency Responder Training (CERT) (24 hrs) *[Harris County Office of Emergency Management]*
- TapRoot Incident Investigation Training (16 hrs) *[Halliburton]*
- Behavior Based Performance Training (16 hrs) *[Halliburton]*
- Explosives Responsible Person Training (8 hrs) *[Halliburton]*
- Inspection Procedures Course (40 hrs) *[U.S. Nuclear Regulatory Commission]*
- Radiation Safety Aspects of Industrial Radiography (40 hrs) *[U.S. Nuclear Regulatory Commission]*
- Industrial Radiography (16 hrs) *[Texas Dept of Health – Bureau of Radiation Control]*
- Diagnostic & Therapeutic Nuclear Medicine (40 hrs) *[U.S. Nuclear Regulatory Commission]*
- Low-Level Radioactive Waste Transportation (16 hrs) *[National Low-Level Waste Project]*
- Accelerator Health Physics Short Course (16 hrs) *[University of Texas]*
- Technical Report Writing (8 hrs) *[Austin Community College]*
- Health Physics Technician Training Course (6 months) *[Puget Sound Naval Shipyard]*
- Basic Electricity & Electronics School (4 months) *[U.S. Navy]*
- Electronics Technician “A” School (7 months) *[U.S. Navy]*
- Naval Nuclear Power School (10 months) *[U.S. Navy]*
- Naval Nuclear Propulsion Plant Operations Training – S3G Plant (6 months) *[U.S. Navy]*

- Electronics Maintenance for Reactor Operators (6 weeks) *[U.S. Navy]*
- Leadership, Management & Training Course (40 hrs) *[U.S. Navy]*
- Instructor Training Course (40 hrs) *[U.S. Navy]*
- Shipboard Firefighting & Damage Control Training (40 hrs) *[U.S. Navy]*
- Principles of Liquid Scintillation Counting (16 hrs) *[Baylor College of Medicine]*
- Control of Bloodborne Pathogens (8 hrs) *[Baylor College of Medicine]*
- Personnel Interview & Selection Procedures (16 hrs) *[Texas Dept of Health]*
- Graduated 1979 Klein High School; Spring, TX



IN RECOGNITION OF ACHIEVEMENT

*Radiation Safety*

*Elizabeth Foltz*

*September 17, 2003*

*This certificate acknowledges the successful completion of this course  
and recognizes your dedication to Sperry-Sun Drilling Services'  
commitment to quality of service.*

Adel Abdel Aziz

Bill Davis

**SPERRY-SUN**  
**DRILLING SERVICES**

No. 17038

## ACCEPTANCE REVIEW MEMO (ARM)

**Licensee:** Halliburton Energy Services, Inc. **License No.:** 42-01068-07  
**Docket No.:** 030-06392 **Mail Control No.:** 471968  
**Type of Action:** Amend **Date of Requested Action:** 09-09-08  
**Reviewer Assigned:** ARM reviewer(s): Torres

Response	Deficiencies Noted During Acceptance Review
	<input type="checkbox"/> Open ended possession limits. Submit inventory. Limit possession. <input type="checkbox"/> Submit copies of latest leak test results. <input type="checkbox"/> Add IC L.C./Fingerprint LC, add SUNSI markings to license. <input type="checkbox"/> Confirm with licensee if they have NARM material.

**Reviewer's Initials:** \_\_\_\_\_ **Date:** \_\_\_\_\_

- ☐ Yes ☐ No Request for unrestricted release Group 2 or >. Consult with Bravo Branch.  
☐ Yes ☐ No Termination request < 90 days from date of expiration  
☐ Yes ☐ No Expedite (medical emergency, no RSO, location of use/storage not on license, RAM in possession not on license, other)  
☐ Yes ☐ No TAR needed to complete action.

**Branch Chief's and/or HP's Initials:** \_\_\_\_\_ **Date:** \_\_\_\_\_

### SUNSI Screening according to RIS 2005-31

☒ No

**Sensitive and Non-Publicly Available** if any item below is checked

General guidance:

- \_\_\_\_\_ RAM = or > than Category 3 (Table 1, RIS 2005-31), use Unity Rule  
\_\_\_\_\_ Exact location of RAM [suite #, bldg. #, location different from mailing address]  
(whether = or > than Category 3 or not)  
\_\_\_\_\_ Design of structure and/or equipment (site specific)  
\_\_\_\_\_ Information on nearby facilities  
\_\_\_\_\_ Detailed design drawings and/or performance information  
\_\_\_\_\_ Emergency planning and/or fire protection systems

Specific guidance for medical, industrial and academic (above Category 3):

- \_\_\_\_\_ RAM quantities and inventory  
\_\_\_\_\_ Manufacturer's name and model number of sealed sources & devices  
\_\_\_\_\_ Site drawings with exact location of RAM, description of facility  
\_\_\_\_\_ RAM security program information (locks, alarms, etc.)  
\_\_\_\_\_ Emergency Plan specifics (routes to/from RAM, response to security events)  
\_\_\_\_\_ Vulnerability/security assessment/accident-safety analysis/risk assess  
\_\_\_\_\_ Mailing lists related to security response

OCT - 8 2008

**Branch Chief's and/or HP's Initials:** RTZ **Date:** \_\_\_\_\_

OCT - 8 2008

This is to acknowledge the receipt of your letter/application dated  
9-09-08, and to inform you that the initial processing,  
which includes an administrative review, has been performed.

DATE

☒ There were no administrative omissions. Your application will be assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

☐ Please provide to this office within 30 days of your receipt of this card:

The action you requested is normally processed within 90 days.

☐ A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned **Mail Control Number** 471968.  
When calling to inquire about this action, please refer to this mail control number.  
You may call me at 817-860-8103.

Sincerely,

*Colleen Murnahan*

Licensing Assistant

BETWEEN:

License Fee Management Branch, ARM  
and  
Regional Licensing Sections

: (FOR LFMS USE)  
: INFORMATION FROM LTS  
: -----  
: Program Code: 03111  
: Status Code: 0  
: Fee Category: 5A  
: Exp. Date: 20171031  
: Fee Comments:  
: Decom Fin Assur Req'd: Y  
: ::::::::::::::::::::::::::::::::::::::

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED

Applicant/Licensee: HALLIBURTON ENERGY SERVICES, INC.  
Received Date: 20080925  
Docket No: 3006392  
Control No.: 471968  
License No.: 42-01068-07  
Action Type: Amendment

2. FEE ATTACHED

Amount: \_\_\_\_\_  
Check No.: /

3. COMMENTS

Signed Colleen Murnahan  
Date 10-01-08

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered /\_/)

1. Fee Category and Amount: \_\_\_\_\_

2. Correct Fee Paid. Application may be processed for:

Amendment \_\_\_\_\_  
Renewal \_\_\_\_\_  
License \_\_\_\_\_

3. OTHER \_\_\_\_\_  
\_\_\_\_\_

Signed \_\_\_\_\_  
Date \_\_\_\_\_

**HALLIBURTON**

3000 N. SAM HOUSTON PARKWAY E.  
HOUSTON, TX 77032

E. Foltz 1002560634

OF THE RETURN ADDRESS, FOLD AT DOTTED LINE

**CERTIFIED MAIL**



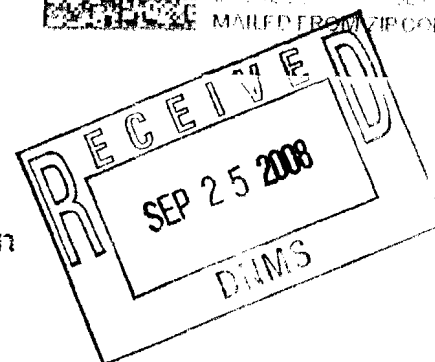
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MAILED FROM ZIP CODE 77032



Mr. Jack Whitten  
U.S. Nuclear Regulatory Commission  
Region IV  
Texas Health Resources Tower  
612 E. Lamar Blvd., Suite 400  
Arlington, TX 76011-4125

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